Case Study

POLESTAR ANALYTICS

Modernizing Application Delivery for the **GCC** of a **Global Manufacturing Leader**

Client Overview

The client is the **Global Capability Center (GCC)** of a leading global manufacturer of **identification, safety, and workplace productivity solutions, supporting enterprise applications, DevOps operations,** and **infrastructure engineering** across global business functions.

As application environments evolved, the GCC needed a standardized approach to provisioning its Open Mage application while eliminating manual server configuration and inconsistent deployment practices.

To establish a scalable and repeatable deployment framework, the client partnered with Polestar Analytics to implement an automated VM image creation and CI/CD pipeline, improving deployment consistency, operational efficiency, and long-term infrastructure maintainability.

Key Challenges

To support growing application and DevOps demands, Polestar Analytics identified key infrastructure challenges affecting deployment consistency, maintenance, and long-term scalability.

1

Manual Server Provisioning

Application environments were built manually, requiring repeated installation and configuration of operating systems, runtime dependencies, and supporting services. This increased engineering effort and introduced inconsistencies across environments.

2

Lack of Standardized Infrastructure

There was no reusable VM image or standardized deployment blueprint, resulting in environment drift between development, testing, and production while making trouble shooting more complex.

3

Inefficient Release & Deployment Process

Application updates and infrastructure changes relied on manual intervention, slowing release cycles and increasing the risk ofconfiguration errors during deployments.

Key Challenges

4

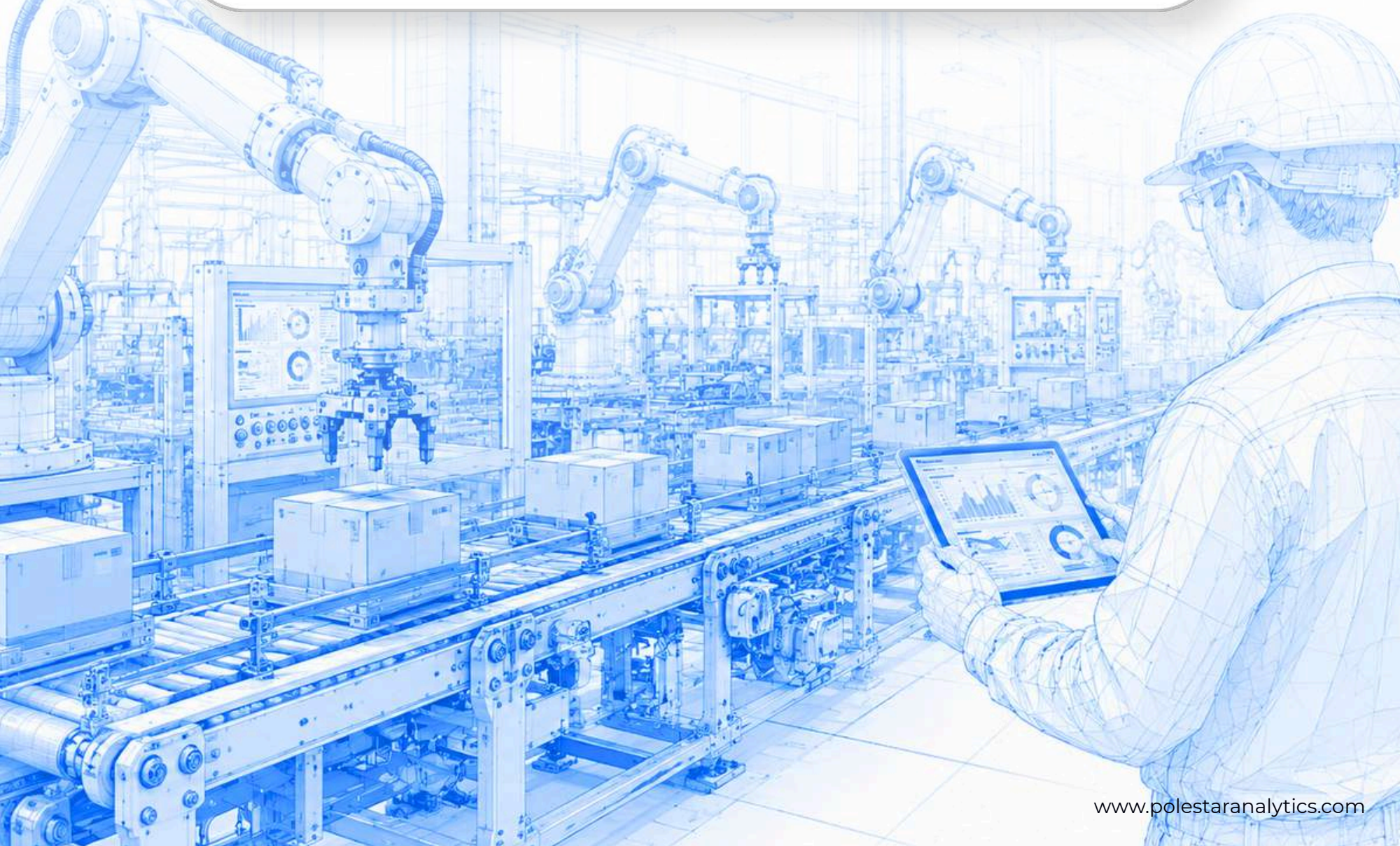
High Maintenance Overhead

Operating system updates, dependency upgrades, and environment patching required ongoing manual effort, consuming valuable engineering resources and increasing operational costs.

5

Limited Deployment Scalability

Without an automated image creation process, provisioning new environments was time-consuming and difficult to scale as businessrequirements evolved.



Solutions Implemented

To modernize application delivery, Polestar Analytics implemented a standardized infrastructure automation framework thatsimplified provisioning, improved deployment consistency, and enabled long-term maintainability.

Standardized VM Image Creation

Designed and built a fully configured VM image tailored for the Open Mage application, incorporating Ubuntu, MariaDB, Redis, PHP, and all required runtime dependencies into a reusable deployment template.

Docker Compose-Based Runtime

Configured Docker Compose as the standardized application run time while enabling shared NFS storage for media and application data across environments.

CI/CD-Driven Image Pipeline

Established an automated CI/CD pipeline for VM image creation and updates, replacing manual server patching with version-controlled image builds that improved deploy ment consistency and governance.

Solutions Implemented

Production-Ready Environment Configuration

Delivered a complete deployment-ready environment with integrated operating system, data base, application runtime, shared storage, and staging mail interception to accelerate provisioning.

Automated Infrastructure Standardization

Enabled repeatable infrastructureprovisioning using standardizedconfigurations, ensuring everydeployment followed the samevalidated architecture while reducingmanual intervention.

Improved DevOps Governance

Created a controlled deploymentframework that improvedcollaboration across applicationengineering, infrastructure, QA,release management, and businessapplication teams while simplifyingfuture upgrades and maintenance.

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Business Impact

100% elimination
of manual server builds after implementation through standardized VM image automation.

1 unified CI/CD image pipeline
established for controlled, repeatable infrastructure provisioning

5+ engineering and business teams
enabled with a consistent deployment framework.

Significantly **reduced deployment effort** through standardized VM images and automated environmentprovisioning.

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Business Impact

Improved deployment reliability by eliminating configuration inconsistencies across environments.

Simplified **future maintenance and upgrades** through version-controlled image creation and modular infrastructure management.

Production-ready application stack delivered with Ubuntu, MariaDB, Redis, PHP, Docker Compose, and sharedNFS storage integrated from day one.

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About Polestar Analytics

Polestar Analytics is a leader in Data, Analytics, AI, and Enterprise Planning helping organizations to unlock intelligent outcomes through our proprietary products like 1Platform, accelerators, and services. Our expertise spans data engineering, data science, agentic and generative AI, and advanced planning for CPG/Retail, Pharmaceuticals, Manufacturing, IT/ITeS, and Financial Services.

Reach out to us today!